Natsuki YOSHIKAWA, Ph.D.

Associate Professor
Program: Environmental Science and Technology
Area: Environmental Science for Agriculture and Forestry
Undergraduate: Dept. of Production and Environment Science
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Professional Expertise

Agricultural engineering
Irrigation and drainage engineering

Research Fields of Interest

- Technical development of flood control measure using paddy field with runoff control devices
- Development of simplified method using GIS for land readjustment planning in sloped agricultural land
- Research on Nitrogen budget and gaseous nitrogen loss in a tropical agricultural watershed
- Research on the effect of purification water on water quality in a lagoon
- Research on the saline wedge on irrigation water

Education

2006: Ph.D. in Agriculture, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan

Professional Societies and Activities

1. Japanese Society of Irrigation, Drainage and Rural Engineering
2. Japan Society of Civil Engineering
3. Japan Society of Hydrology and Water Resources

Awards

1. JSIDRE Award, 2010

Major Publications

Papers

[1] "Land Readjustment Planning of Paddy Fields on Steep lopes with the Parallel Leveed Contour Plots Using GIS", W*ater, Land and Environmental Engineering*, vol.79, no.9, 2011.

[2] "Evaluation of Social Function of paddy Field Dam and its Technical Prospects" *Japan Soc. Hydrol. and Water Resour.*, vol.24, no.5, pp.202-210, 2011.

[3] "Development of Inundation Analysis Model for Low-Lying Agricultural Reservoir", *Annual Journal of Hydraulic Engineering*, *JSCE*, vol.55, pp.991-996, 2011.

[4] "Requirements for Vertically Installed Runoff Control Boards for the "Paddy Field Dam" and Appropriate Orifice Shapes", *Trans. JSIDRE*, vol.78, no.4, pp.273-279, 2010.

[5] "The Potential of Paddy Field Fishways Using Corrugated Pipes", *Water, Land and Environmental Engineering*, vol.78, no.7, pp.559-562, 2011.

[6] "Elastic Water Supply Model for the Efficient Distribution of Irrigation water", *Annual Journal of River Engineering*, vol.16, pp.277-282, 2010.

[7] "Evaluation of Flood Mitigation Effect of a Paddy Field in an Unimproved Paddy Field Area", *Annual Journal of River Engineering*, vol.16, pp.507-512, 2010.

[8] "A Simplified Method Using GIS for Land Readjustment Planning in Sloped Agricultural Land", *Water, Land and Environmental Engineering*, vol.77, no.12, pp.1009-1013, 2011.

[9] “Evaluation of the flood mitigation effect of a Paddy Field Dam Project”, *Agricultural Water management*, vol.97, pp.259-270, 2011.
[10] “Effect of Limited-scale Improvement Works on the Maintenance of Food for Japanese Crested Ibis in Hilly and Mountainous Areas”, *Trans. JSIDRE*, vol.77, no.4, pp.335-344, 2009.
[11] “Evaluation of Runoff Detention Function of the Paddy Field Installed with Runoff Control Devices”, *Trans. JSIDRE*, vol.77, no.3, pp.263-271, 2009.
[12] “Watershed Scale Evaluation of Flood Mitigation Function of Paddy Fields Installed with Runoff Control Devices”, *Trans. JSIDRE*, vol.77, no.3, pp.273-280, 2009.
[13] “Study on the Land Readjustment Project for the Devastatingly Affected Areas by Ground Disaster in the Mid Niigata Prefecture Earthquake”, *Trans. JSIDRE*, vol.76, no.2, pp.129-132, 2008.
[14] “Nitrogen Budget and Gaseous Nitrogen Loss in a Tropical Agricultural Watershed”, *Biogeochemistry*, vol.87, pp.1-15, 2008.
[15] “Measures for Restoration of Ponds Breeding Fancy Carp Struck by the Mid Niigata Prefecture Earthquake in 2004”, *Water, Land and Environmental Engineering*, vol.75, no.4, pp.129-132, 2007.
[16] “Damages to Irrigation and Drainage Canals in Niigata Chuetsu Earthquake and Their Restorations”, *Water, Land and Environmental Engineering*, vol.75, no.3, pp.129-132, 2007.
[17] “Simplified Method for Damage Assessment Introduced in the Niigata Chuetsu Earthquake”, *Water, Land and Environmental Engineering*, vol.75, no.3, pp.205-209, 2007.
[18] “Estimating Variable Acreage of Cultivated Paddy Fields form Preceding Precipitation in a Tropical Watershed Utilizing Landsat TM/ETM”, *Agricultural Water Management*, vol.85, no.3, pp.296-604, 2006.